



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number:** pVF1623628119

**3RF - 13651**

**CONOCOPHILLIPS COMPANY**

8/23/2016

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company ConocoPhillips Co.	Contact Lisa Hunter
Address 3401 East 30 <sup>th</sup> St, Farmington, NM	Telephone No.(505)-258-1607
Facility Name: San Juan 30-6 CTB	Facility Type: Tank Battery

Surface Owner: Federal	Mineral Owner: N/A	API No. N/A
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**LOCATION OF RELEASE**

Unit Letter M	Section 22	Township 30N	Range 6W	Feet from the N/A	North/South Line N/A	Feet from the N/A	East/West Line N/A	County Rio Arriba
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Latitude: 36.79427; Longitude: -107.45599

**NATURE OF RELEASE**

Type of Release Historic Contamination	Volume of Release Unknown	Volume Recovered 462 yds
Source of Release Above Grade Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery August 21, 2015
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.\*  
N/A

**OIL CONS. DIV DIST. 3**

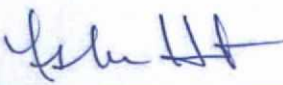

**NOV 18 2015**

Describe Cause of Problem and Remedial Action Taken.\*  
Historic contamination discovered during P&A activities

Describe Area Affected and Cleanup Action Taken.\*

Historical hydrocarbon impacted soil was found during P&A activities for the subject well. The excavation was app. 49' x 51 x 3 to 7' in depth and 462 yds of soil was transported to IEI land farm and 462 yds of clean soil from an approved source was placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Lisa Hunter		Approved by Environmental Specialist: 	
Title: Field Environmental Specialist		Approval Date: 12/17/2015	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com		Conditions of Approval: NVF1623627003	Attached <input type="checkbox"/>
Date: 11/18/2015 Phone: (505) 258-1607			

\* Attach Additional Sheets If Necessary

31





October 29, 2015

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
(505) 326-9786

OIL CONS. DIV DIST. 3  
NOV 18 2015

*Via electronic mail to:*  
[SJBUE-Team@ConocoPhillips.com](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: Release Assessment and Final Excavation Report  
San Juan 30-6 CTB3  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On August 24 and 27, 2015, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (COPC) San Juan 30-6 CTB3, located in Rio Arriba County, New Mexico. Historic contamination was discovered during facility decommissioning. The initial release assessment was completed by AES on August 24, 2015, and the final excavation was completed by COPC contractors on August 27, 2015, while AES was at the location.

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## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 30-6 CTB3

Location – SW¼ SW¼, Section 22, T30N, R6W, Rio Arriba County, New Mexico

BGT Latitude/Longitude – N36.79419 and W107.45610, respectively

Release Location Latitude/Longitude – N36.79427 and W107.45599, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, August 2015

604 W. Piñon St.  
Farmington, NM 87401  
505-564-2281

1911 Main, Ste 280  
Durango, CO 81301  
970-403-3084

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A Cathodic Report form dated May 1991 reported the depth to groundwater at 90 feet below ground surface (bgs). (10 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** An unnamed wash which discharges to Francis Creek is located approximately 170 feet south of the location. (20 points)

## 1.3 Assessment

AES was initially contacted by Lisa Hunter of COPC on August 21, 2015, and on August 24, 2015, Stephanie Hinds of AES completed the release assessment field work. The assessment included collection and field sampling of 15 soil samples from 9 test holes in and around the release area. Test holes were terminated between 5 and 8 feet below grade. Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On August 27, 2015, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of nine confirmation soil samples (SC-1 through SC-9) from the walls and base of the excavation. The area of the final excavation measured approximately 49 feet by 51 feet by 3 to 7 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

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## 2.0 Soil Sampling

A total of 15 soil samples from 9 test holes (TH-1 through TH-9) and 9 composite samples (SC-1 through SC-9) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were analyzed for total petroleum hydrocarbons (TPH). Nine composite samples (SC-1 through SC-9) collected during the excavation clearance were also submitted for confirmation laboratory analysis.



## **2.1 Field Sampling**

### **2.1.1 Volatile Organic Compounds**

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### **2.1.2 Total Petroleum Hydrocarbons**

Field TPH samples were analyzed per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## **2.2 Laboratory Analyses**

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. All soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH for gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) per USEPA Method 8015D.

## **2.3 Field and Laboratory Analytical Results**

On August 24, 2015, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm in TH-3, TH-4, TH-8 and TH-9 up to 22.8 ppm in TH-1. Field TPH concentrations ranged from less than 20.0 mg/kg in TH-3 and TH-7 up to greater than 2,500 mg/kg in TH-1.

On August 27, 2015, final excavation field screening results for VOCs via OVM ranged from 65.9 ppm in SC-8 up to 385 ppm in SC-4. Field TPH concentrations ranged from 26.8 mg/kg in SC-3 up to 111 mg/kg in SC-5. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Table 1. Soil Field VOCs and TPH Results  
San Juan 30-6 CTB3 Initial Release Assessment and Final Excavation  
August 2015

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOCD Action Level*</i>			<b>100</b>	<b>100</b>
TH-1	8/24/15	2	22.8	<b>&gt;2,500</b>
		6	0.2	24.9
TH-2	8/24/15	2	1.2	NA
		6	0.2	37.1
TH-3	8/24/15	2	0.0	NA
		6	1.3	<20.0
TH-4	8/24/15	2	6.2	<b>186</b>
		6	0.0	33.0
TH-5	8/24/15	5	0.8	<b>283</b>
		8	0.8	54.6
TH-6	8/24/15	8	0.1	29.0
TH-7	8/24/15	2	5.9	<20.0
		6	0.1	43.8
TH-8	8/24/15	5	0.0	33.0
TH-9	8/24/15	5	0.0	23.6
SC-1	8/27/15	7	<b>332</b>	43.7
SC-2	8/27/15	5	<b>231</b>	30.2
SC-3	8/27/15	0 to 5	<b>152</b>	26.8
SC-4	8/27/15	0 to 3	<b>385</b>	50.5
SC-5	8/27/15	0 to 5	<b>220</b>	<b>111</b>
SC-6	8/27/15	5	<b>145</b>	60.0
SC-7	8/27/15	0 to 7	<b>110</b>	31.4
SC-8	8/27/15	8	66	43.0
SC-9	8/27/15	3	<b>284</b>	29.7

NA - not analyzed

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)



Laboratory analyses for SC-1 through SC-9 were used to confirm field sampling results from the final excavation. Benzene and total BTEX concentrations in SC-1 through SC-9 were reported below laboratory detection limits of 0.049 mg/kg and 0.245 mg/kg, respectively. TPH concentrations as GRO/DRO in SC-1 through SC-9 were reported below the laboratory detection limits. Results are presented in Table 2 and on Figure 4. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
San Juan 30-6 CTB3 Initial Release Assessment and Final Excavation  
August 2015

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>10</i>	<i>50</i>	<i>100</i>	
SC-1	8/27/15	7	<0.048	<0.241	<4.8	<10
SC-2	8/27/15	5	<0.049	<0.245	<4.9	<10
SC-3	8/27/15	0 to 5	<0.049	<0.245	<4.9	<10
SC-4	8/27/15	0 to 3	<0.049	<0.245	<4.9	<9.9
SC-5	8/27/15	0 to 5	<0.047	<0.235	<4.7	<9.9
SC-6	8/27/15	5	<0.048	<0.241	<4.8	<10
SC-7	8/27/15	0 to 7	<0.048	<0.241	<4.8	<10
SC-8	8/27/15	5	<0.049	<0.244	<4.9	<9.6
SC-9	8/27/15	3	<0.046	<0.23	<4.6	<10

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

On August 24, 2015, AES conducted an initial assessment of petroleum contaminated soils associated with historic contamination discovered at the San Juan 30-6 CTB3. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 30.

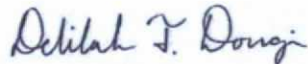
Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in TH-1, TH-4 and TH-5. The highest VOC and TPH concentrations were reported in TH-1 with 22.8 ppm and 2,500 mg/kg, respectively.

On August 27, 2015, final excavation of the impacted area was completed. Field sampling results of the excavation extents showed that VOC concentrations were above applicable NMOCD action levels for the final walls and base of the excavation, except for SC-8 (north wall) which had a VOC concentration of 65.9 ppm. Field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls and base of the excavation, with the exception of SC-5 (south wall) which had a TPH concentration of 111 mg/kg. However, laboratory analytical results reported benzene, total BTEX, and TPH concentrations as GRO/DRO below the applicable NMOCD action level in SC-1 through SC-9.


Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 30-6 CTB3, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Emilee Skyles at (505) 564-2281.

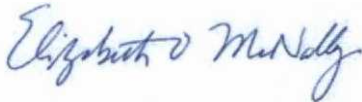
Sincerely,



Delilah T. Dougi  
Environmental Technician



Emilee Skyles  
Geologist/Project Lead



Elizabeth McNally, PE

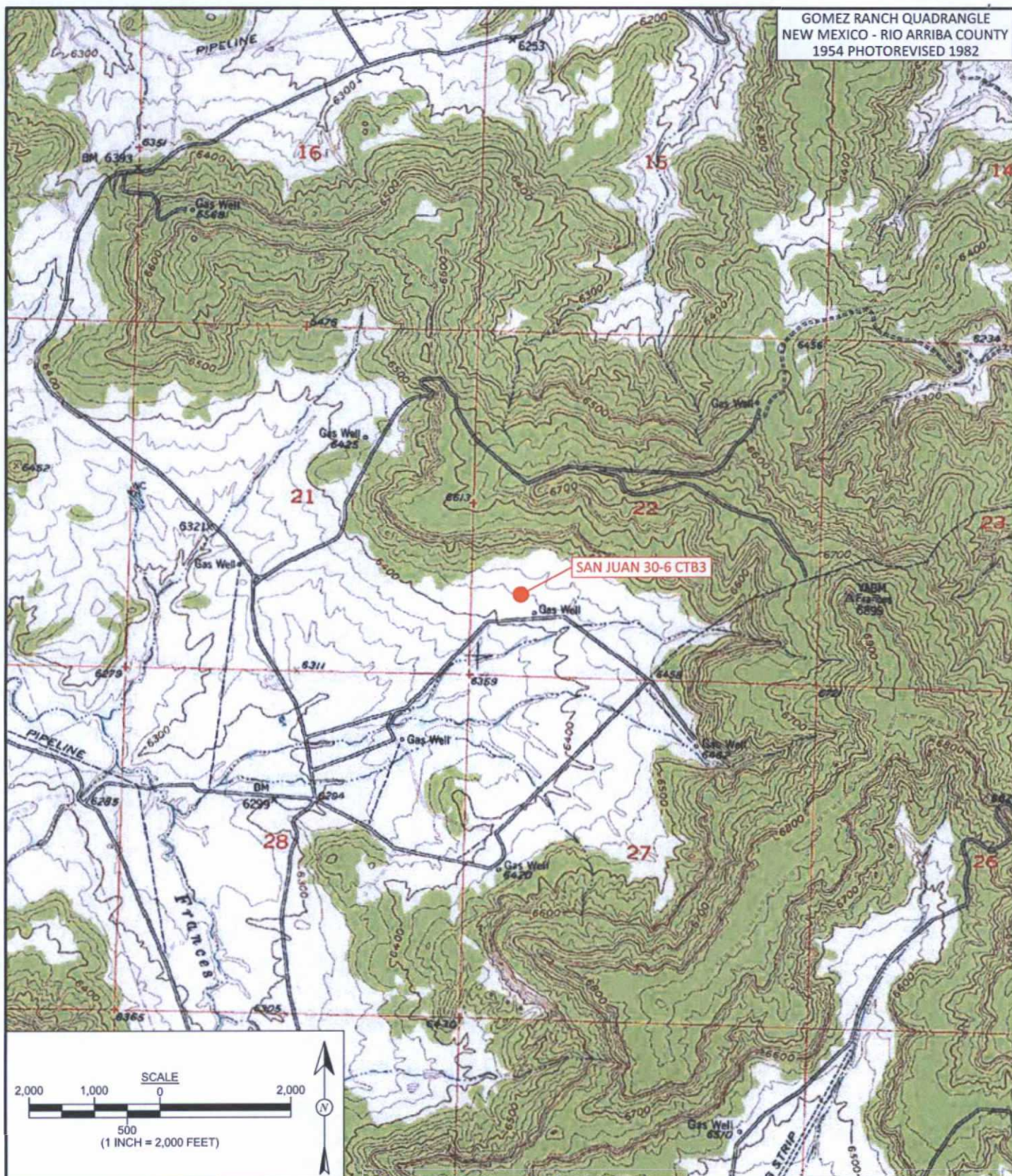
Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, August 2015
- Figure 3. Initial Assessment Sample Locations and Results, August 2015
- Figure 4. Final Excavation Sample Locations and Results, August 2015
- AES Field Sampling Report 082415
- AES Field Sampling Report 082715
- Hall Laboratory Analytical Report 1509012



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Projects\ConocoPhillips\SJ 30-6 CTB3\Release\COPC SJ 30-6 CTB3 Release and Final Excavation Report  
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animasenvironmental.com

**DRAWN BY:**  
D. Dougl

**DATE DRAWN:**  
August 18, 2015

**REVISIONS BY:**  
D. Dougl

**DATE REVISED:**  
October 13, 2015

**CHECKED BY:**  
E. Skyles

**DATE CHECKED:**  
October 13, 2015

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
October 13, 2015

## FIGURE 1

### TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips  
SAN JUAN 30-6 CTB3  
SW¼ SW¼, SECTION 22, T30N, R6W  
RIO ARriba COUNTY, NEW MEXICO  
N36.79419, W107.45610



LEGEND

=====

SECONDARY CONTAINMENT BERM



<div> <div> <div>AES</div> <div> <div>animas environmental services</div> <div>Farmington, NM • Durango, CO</div> <div>animasenvironmental.com</div> </div> </div> </div>	<div>DRAWN BY:</div> <div>C. Lameman</div>	<div>DATE DRAWN:</div> <div>August 31, 2015</div>	<div>FIGURE 2</div> <div>AERIAL SITE MAP</div> <div>AUGUST 2015</div> <div>ConocoPhillips</div> <div>SAN JUAN 30-6 CTB3</div> <div>SW¼ SW¼, SECTION 22, T30N, R6W</div> <div>RIO ARriba COUNTY, NEW MEXICO</div> <div>N36.79419, W107.45610</div>
	<div>REVISIONS BY:</div> <div>D. Dougi</div>	<div>DATE REVISED:</div> <div>October 13, 2015</div>	
	<div>CHECKED BY:</div> <div>E. Skyles</div>	<div>DATE CHECKED:</div> <div>October 13, 2015</div>	
	<div>APPROVED BY:</div> <div>E. McNally</div>	<div>DATE APPROVED:</div> <div>October 13, 2015</div>	



# FIGURE 3

## INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS AUGUST 2015

ConocoPhillips  
SAN JUAN 30-6 CTB3  
SW¼, SW¼, SECTION 22, T30N, R6W  
RIO ARriba COUNTY, NEW MEXICO  
N36.79419, W107.45610



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DRAWN BY:  
C. Lameman

DATE DRAWN:  
August 25, 2015

REVISIONS BY:  
D. Dougl

DATE REVISED:  
October 13, 2015

CHECKED BY:  
E. Skyles

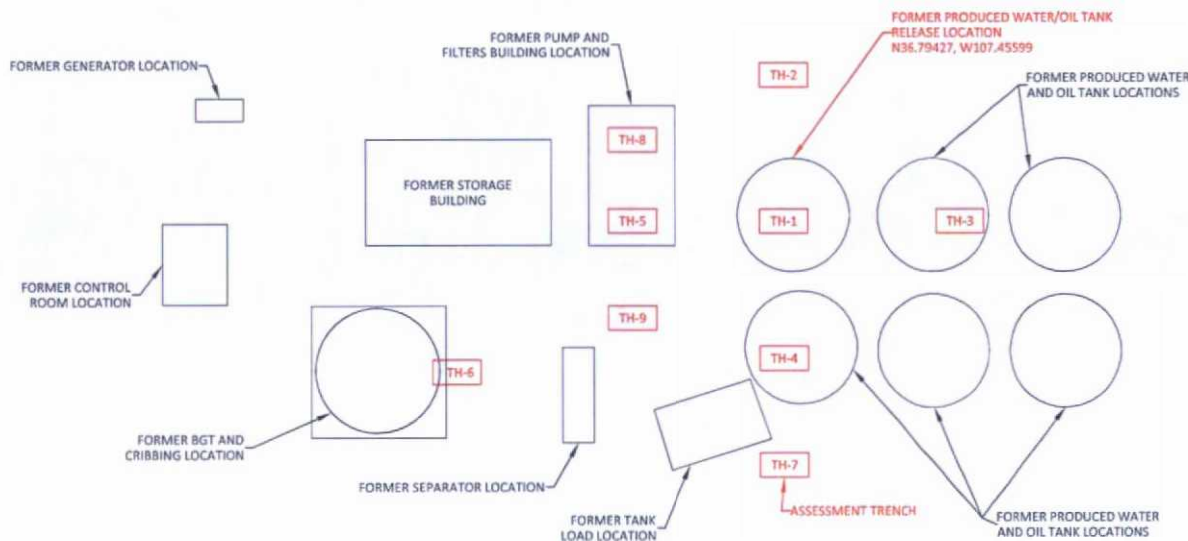
DATE CHECKED:  
October 13, 2015

APPROVED BY:  
E. McNally

DATE APPROVED:  
October 13, 2015

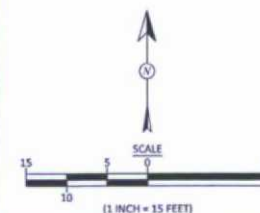
### LEGEND

===== SECONDARY CONTAINMENT BERM  
— X — FENCE



Field Sampling Results				
Sample ID	Date	Depth (ft)	OV/M- PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
TH-1	8/24/15	2	22.8	>2,500
		6	0.2	24.9
TH-2	8/24/15	2	1.2	NA
		6	0.2	37.1
TH-3	8/24/15	2	0.0	NA
		6	1.3	<20.0
TH-4	8/24/15	2	6.2	186
		6	0.0	33.0
TH-5	8/24/15	5	0.8	283
		8	0.8	54.6
TH-6	8/24/15	8	0.1	29.0
TH-7	8/24/15	2	5.9	<20.0
		6	0.1	43.8
TH-8	8/24/15	5	0.0	33.0
TH-9	8/24/15	5	0.0	23.6

NA - NOT ANALYZED





# FIGURE 4

## FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS AUGUST 2015

ConocoPhillips  
SAN JUAN 30-6 CTB3  
SW¼ SW¼, SECTION 22, T30N, R6W  
RIO ARriba COUNTY, NEW MEXICO  
N36.794127, W107.45510

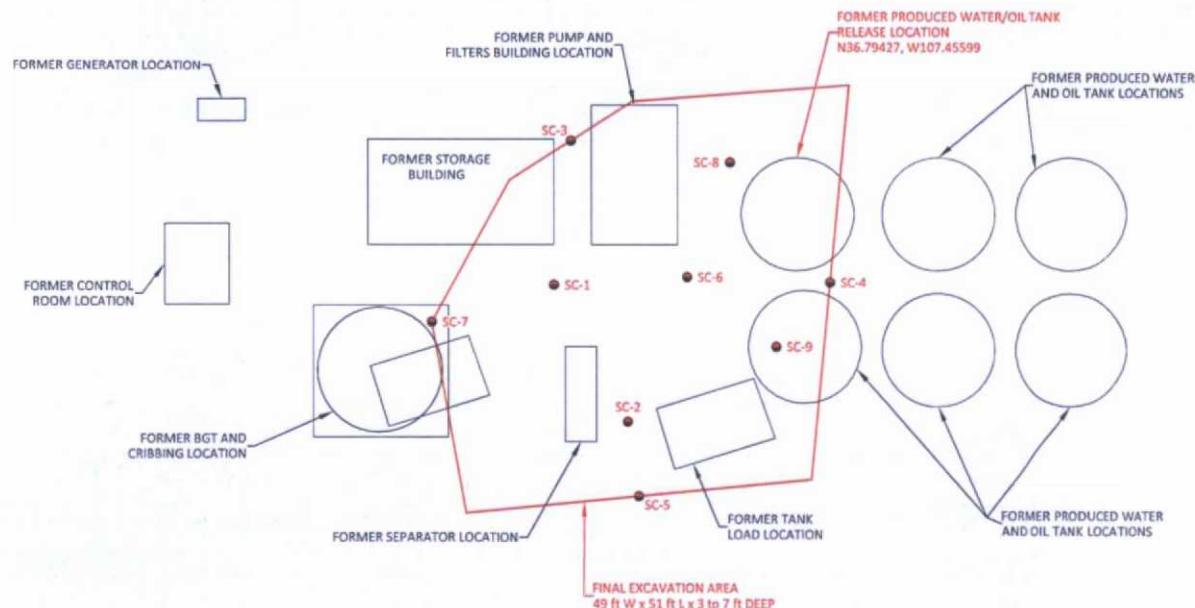


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<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> August 25, 2015
<b>REVISIONS BY:</b> D. Dougl	<b>DATE REVISED:</b> October 13, 2015
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 13, 2015
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 13, 2015

### LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- x — FENCE

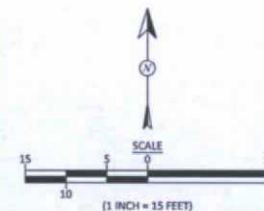


Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	8/27/15	7	332	43.7
SC-2	8/27/15	5	231	30.2
SC-3	8/27/15	0 to 5	152	26.8
SC-4	8/27/15	0 to 3	385	NA
SC-5	8/27/15	0 to 5	220	111
SC-6	8/27/15	5	145	60.0
SC-7	8/27/15	0 to 7	110	31.4
SC-8	8/27/15	5	65.9	43.0
SC-9	8/27/15	3	284	29.7

ALL SAMPLES WERE COMPOSITE SAMPLES.  
NA - NOT ANALYZED

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	100	
SC-1	8/27/15	7	<0.048	<0.241	<4.8	<10
SC-2	8/27/15	5	<0.049	<0.245	<4.9	<10
SC-3	8/27/15	0 to 5	<0.049	<0.245	<4.9	<10
SC-4	8/27/15	0 to 3	<0.049	<0.245	<4.9	<9.9
SC-5	8/27/15	0 to 5	<0.047	<0.235	<4.7	<9.9
SC-6	8/27/15	5	<0.048	<0.241	<4.8	<10
SC-7	8/27/15	0 to 7	<0.048	<0.241	<4.8	<10
SC-8	8/27/15	5	<0.049	<0.244	<4.9	<9.6
SC-9	8/27/15	3	<0.046	<0.23	<4.6	<10

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 30-6 CTB3

Date: 8/24/2015

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 2'	8/24/2015	10:55	22.8	>2,500	11:17	20.0	1	SH
TH-1 @ 6'	8/24/2015	10:59	0.2	24.9	11:20	20.0	1	SH
TH-2 @ 2'	8/24/2015	11:29	1.2	Not Analyzed for TPH				
TH-2 @ 6'	8/24/2015	11:36	0.2	37.1**	10:26	20.0	1	SH
TH-3 @ 2'	8/24/2015	11:40	0.0	Not Analyzed for TPH				
TH-3 @ 6'	8/24/2015	11:48	1.3	< 20.0	10:32	20.0	1	SH
TH-4 @ 2'	8/24/2015	11:55	6.2	186**	10:39	20.0	1	SH
TH-4 @ 6'	8/24/2015	11:59	0.0	33.0**	11:04	20.0	1	SH
TH-5 @ 5'	8/24/2015	12:15	0.8	283	16:59	20.0	1	SH
TH-5 @ 8'	8/24/2015	15:52	0.8	54.6	16:37	20.0	1	SH
TH-6 @ 8'	8/24/2015	12:22	0.1	29.0	17:02	20.0	1	SH
TH-7 @ 2'	8/24/2015	15:59	5.9	< 20.0	16:41	20.0	1	SH
TH-7 @ 6'	8/24/2015	16:10	0.1	43.8	17:55	20.0	1	SH



Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-8 @ 5'	8/24/2015	17:15	0.0	33.0	17:45	20.0	1	SH
TH-9 @ 5'	8/24/2015	17:24	0.0	23.6	17:48	20.0	1	SH

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

\*\*Samples were analyzed on 8/25/15.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Stephanie A. Hinds*

# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 30-6 CTB3

Date: 8/27/2015

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	8/27/2015	15:30	West Base	332	43.7	16:13	20.0	1	SG
SC-2	8/27/2015	15:38	South Base	231	30.2	16:18	20.0	1	SG
SC-3	8/27/2015	16:20	North Wall	152	26.8	21:23	20.0	1	SG
SC-4	8/27/2015	16:00	East Wall	385	50.5	21:25	20.0	1	SG
SC-5	8/27/2015	16:08	South Wall	220	111	21:28	20.0	1	SG
SC-6	8/27/2015	16:30	Center Base	145	60.0	21:32	20.0	1	SG
SC-7	8/27/2015	16:39	West Wall	110	31.4	21:33	20.0	1	SG
SC-8	8/27/2015	16:45	North Base	66	43.0	21:36	20.0	1	SG
SC-9	8/27/2015	16:15	East Base	284	29.7	21:39	20.0	1	SG

DF Dilution Factor

NA Not Analyzed

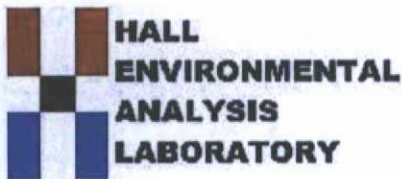
PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Ann H. Llesca*





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

September 04, 2015

Emilee Skyles

Animas Environmental  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX

RE: COPC SJ 30-6 CTB3

OrderNo.: 1509012

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/1/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COPC SJ 30-6 CTB3

Collection Date: 8/27/2015 3:30:00 PM

Lab ID: 1509012-001

Matrix: SOIL

Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2015 9:14:14 PM	21068
Surr: DNOP	109	57.9-140		%REC	1	9/2/2015 9:14:14 PM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/2/2015 2:03:09 PM	21089
Surr: BFB	86.4	75.4-113		%REC	1	9/2/2015 2:03:09 PM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	9/2/2015 2:03:09 PM	21089
Toluene	ND	0.048		mg/Kg	1	9/2/2015 2:03:09 PM	21089
Ethylbenzene	ND	0.048		mg/Kg	1	9/2/2015 2:03:09 PM	21089
Xylenes, Total	ND	0.097		mg/Kg	1	9/2/2015 2:03:09 PM	21089
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	9/2/2015 2:03:09 PM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

## Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: COPC SJ 30-6 CTB3

Collection Date: 8/27/2015 3:38:00 PM

Lab ID: 1509012-002

Matrix: SOIL

Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2015 9:41:51 PM	21068
Surr: DNOP	99.0	57.9-140		%REC	1	9/2/2015 9:41:51 PM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/2/2015 3:19:21 PM	21089
Surr: BFB	86.4	75.4-113		%REC	1	9/2/2015 3:19:21 PM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	9/2/2015 3:19:21 PM	21089
Toluene	ND	0.049		mg/Kg	1	9/2/2015 3:19:21 PM	21089
Ethylbenzene	ND	0.049		mg/Kg	1	9/2/2015 3:19:21 PM	21089
Xylenes, Total	ND	0.098		mg/Kg	1	9/2/2015 3:19:21 PM	21089
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	9/2/2015 3:19:21 PM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

**CLIENT:** Animas Environmental

**Client Sample ID:** SC-3

**Project:** COPC SJ 30-6 CTB3

**Collection Date:** 8/27/2015 4:20:00 PM

**Lab ID:** 1509012-003

**Matrix:** SOIL

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2015 10:09:35 PM	21068
Surr: DNOP	98.4	57.9-140		%REC	1	9/2/2015 10:09:35 PM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/2/2015 4:35:28 PM	21089
Surr: BFB	92.1	75.4-113		%REC	1	9/2/2015 4:35:28 PM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	9/2/2015 4:35:28 PM	21089
Toluene	ND	0.049		mg/Kg	1	9/2/2015 4:35:28 PM	21089
Ethylbenzene	ND	0.049		mg/Kg	1	9/2/2015 4:35:28 PM	21089
Xylenes, Total	ND	0.098		mg/Kg	1	9/2/2015 4:35:28 PM	21089
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	9/2/2015 4:35:28 PM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: COPC SJ 30-6 CTB3

Collection Date: 8/27/2015 4:00:00 PM

Lab ID: 1509012-004

Matrix: SOIL

Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/2/2015 10:37:26 PM	21068
Surr: DNOP	101	57.9-140		%REC	1	9/2/2015 10:37:26 PM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/2/2015 5:00:46 PM	21089
Surr: BFB	90.9	75.4-113		%REC	1	9/2/2015 5:00:46 PM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	9/2/2015 5:00:46 PM	21089
Toluene	ND	0.049		mg/Kg	1	9/2/2015 5:00:46 PM	21089
Ethylbenzene	ND	0.049		mg/Kg	1	9/2/2015 5:00:46 PM	21089
Xylenes, Total	ND	0.098		mg/Kg	1	9/2/2015 5:00:46 PM	21089
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	9/2/2015 5:00:46 PM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		



Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental  
 Project: COPC SJ 30-6 CTB3  
 Lab ID: 1509012-005

Matrix: SOIL

Client Sample ID: SC-5  
 Collection Date: 8/27/2015 4:08:00 PM  
 Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/2/2015 11:05:01 PM	21068
Surr: DNOP	100	57.9-140		%REC	1	9/2/2015 11:05:01 PM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/3/2015 12:35:59 AM	21089
Surr: BFB	89.9	75.4-113		%REC	1	9/3/2015 12:35:59 AM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	9/3/2015 12:35:59 AM	21089
Toluene	ND	0.047		mg/Kg	1	9/3/2015 12:35:59 AM	21089
Ethylbenzene	ND	0.047		mg/Kg	1	9/3/2015 12:35:59 AM	21089
Xylenes, Total	ND	0.094		mg/Kg	1	9/3/2015 12:35:59 AM	21089
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	9/3/2015 12:35:59 AM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order 1509012

Date Reported: 9/4/2015

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental**Client Sample ID:** SC-6**Project:** COPC SJ 30-6 CTB3**Collection Date:** 8/27/2015 4:30:00 PM**Lab ID:** 1509012-006**Matrix:** SOIL**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2015 11:32:42 PM	21068
Surr: DNOP	99.8	57.9-140		%REC	1	9/2/2015 11:32:42 PM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/3/2015 1:01:12 AM	21089
Surr: BFB	86.5	75.4-113		%REC	1	9/3/2015 1:01:12 AM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	9/3/2015 1:01:12 AM	21089
Toluene	ND	0.048		mg/Kg	1	9/3/2015 1:01:12 AM	21089
Ethylbenzene	ND	0.048		mg/Kg	1	9/3/2015 1:01:12 AM	21089
Xylenes, Total	ND	0.097		mg/Kg	1	9/3/2015 1:01:12 AM	21089
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	9/3/2015 1:01:12 AM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

CLIENT: Animas Environmental

Client Sample ID: SC-7

Project: COPC SJ 30-6 CTB3

Collection Date: 8/27/2015 4:39:00 PM

Lab ID: 1509012-007

Matrix: SOIL

Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/3/2015 12:00:27 AM	21068
Surr: DNOP	105	57.9-140		%REC	1	9/3/2015 12:00:27 AM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/3/2015 1:26:35 AM	21089
Surr: BFB	88.1	75.4-113		%REC	1	9/3/2015 1:26:35 AM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	9/3/2015 1:26:35 AM	21089
Toluene	ND	0.048		mg/Kg	1	9/3/2015 1:26:35 AM	21089
Ethylbenzene	ND	0.048		mg/Kg	1	9/3/2015 1:26:35 AM	21089
Xylenes, Total	ND	0.097		mg/Kg	1	9/3/2015 1:26:35 AM	21089
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	9/3/2015 1:26:35 AM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-8

Project: COPC SJ 30-6 CTB3

Collection Date: 8/27/2015 4:45:00 PM

Lab ID: 1509012-008

Matrix: SOIL

Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/3/2015 12:28:06 AM	21068
Surr: DNOP	102	57.9-140		%REC	1	9/3/2015 12:28:06 AM	21068
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/3/2015 1:51:59 AM	21089
Surr: BFB	88.2	75.4-113		%REC	1	9/3/2015 1:51:59 AM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	9/3/2015 1:51:59 AM	21089
Toluene	ND	0.049		mg/Kg	1	9/3/2015 1:51:59 AM	21089
Ethylbenzene	ND	0.049		mg/Kg	1	9/3/2015 1:51:59 AM	21089
Xylenes, Total	ND	0.097		mg/Kg	1	9/3/2015 1:51:59 AM	21089
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	9/3/2015 1:51:59 AM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1509012

Date Reported: 9/4/2015

CLIENT: Animas Environmental

Client Sample ID: SC-9

Project: COPC SJ 30-6 CTB3

Collection Date: 8/27/2015 4:15:00 PM

Lab ID: 1509012-009

Matrix: SOIL

Received Date: 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/3/2015 1:34:03 PM	21083
Surr: DNOP	101	57.9-140		%REC	1	9/3/2015 1:34:03 PM	21083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/3/2015 2:17:20 AM	21089
Surr: BFB	89.2	75.4-113		%REC	1	9/3/2015 2:17:20 AM	21089
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	9/3/2015 2:17:20 AM	21089
Toluene	ND	0.046		mg/Kg	1	9/3/2015 2:17:20 AM	21089
Ethylbenzene	ND	0.046		mg/Kg	1	9/3/2015 2:17:20 AM	21089
Xylenes, Total	ND	0.092		mg/Kg	1	9/3/2015 2:17:20 AM	21089
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	9/3/2015 2:17:20 AM	21089

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509012

04-Sep-15

Client: Animas Environmental

Project: COPC SJ 30-6 CTB3

Sample ID	MB-21068	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21068	RunNo:	28606					
Prep Date:	8/31/2015	Analysis Date:	9/2/2015	SeqNo:	866078	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		97.7	57.9	140			

Sample ID	LCS-21068	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21068	RunNo:	28606					
Prep Date:	8/31/2015	Analysis Date:	9/2/2015	SeqNo:	866079	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.6	57.4	139			
Surr: DNOP	5.3		5.000		106	57.9	140			

Sample ID	MB-21083	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21083	RunNo:	28637					
Prep Date:	9/1/2015	Analysis Date:	9/3/2015	SeqNo:	867224	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		108	57.9	140			

Sample ID	LCS-21083	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21083	RunNo:	28637					
Prep Date:	9/1/2015	Analysis Date:	9/3/2015	SeqNo:	867225	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	57.4	139			
Surr: DNOP	5.0		5.000		99.8	57.9	140			

Sample ID	1509012-009AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-9	Batch ID:	21083	RunNo:	28637					
Prep Date:	9/1/2015	Analysis Date:	9/3/2015	SeqNo:	867228	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.8	49.16	0	100	42.3	146			
Surr: DNOP	5.0		4.916		102	57.9	140			

Sample ID	1509012-009AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-9	Batch ID:	21083	RunNo:	28637					
Prep Date:	9/1/2015	Analysis Date:	9/3/2015	SeqNo:	867229	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509012

04-Sep-15

Client: Animas Environmental

Project: COPC SJ 30-6 CTB3

Sample ID	1509012-009AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-9	Batch ID:	21083	RunNo:	28637					
Prep Date:	9/1/2015	Analysis Date:	9/3/2015	SeqNo:	867229	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.05	0	104	42.3	146	4.98	28.9	
Surr: DNOP	5.1		5.005		102	57.9	140	0	0	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509012

04-Sep-15

Client: Animas Environmental

Project: COPC SJ 30-6 CTB3

Sample ID	MB-21086	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	21086	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866257	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	840		1000		84.1	75.4	113			

Sample ID	LCS-21086	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	21086	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866258	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.0	75.4	113			

Sample ID	MB-21089	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	21089	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866273	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.6	75.4	113			

Sample ID	LCS-21089	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	21089	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866274	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.8	79.6	122			
Surr: BFB	970		1000		97.2	75.4	113			

Sample ID	1509012-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	21089	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866277	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.56	0	108	62.5	151			
Surr: BFB	960		982.3		97.5	75.4	113			

Sample ID	1509012-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	21089	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866278	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.58	0	121	62.5	151	11.4	22.1	
Surr: BFB	1200		983.3		118	75.4	113	0	0	S

### Qualifiers:

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- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509012

04-Sep-15

Client: Animas Environmental

Project: COPC SJ 30-6 CTB3

Sample ID	MB-21086		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	21086		RunNo:	28617				
Prep Date:	9/1/2015		Analysis Date:	9/2/2015		SeqNo:	866291		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	80	120				

Sample ID	LCS-21086		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 21086		RunNo: 28617					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866292		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	MB-21089	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	21089		RunNo:	28617				
Prep Date:	9/1/2015	Analysis Date:	9/2/2015		SeqNo:	866297		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-21089		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 21089		RunNo: 28617					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866298		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	92.1	80	120			
Toluene	0.92	0.050	1.000	0	92.4	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1509012-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-1		Batch ID: 21089		RunNo: 28617					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866300		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.048	0.9662	0.01401	94.7	69.6	136			
Toluene	0.96	0.048	0.9662	0.01871	97.9	76.2	134			
Ethylbenzene	1.0	0.048	0.9662	0	104	75.8	137			
Xylenes, Total	3.0	0.097	2.899	0.04764	101	78.9	133			

### Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509012

04-Sep-15

Client: Animas Environmental

Project: COPC SJ 30-6 CTB3

Sample ID	1509012-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	21089	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866300	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9662		105	80	120			

Sample ID	1509012-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	21089	RunNo:	28617					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866301	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.048	0.9653	0.01401	100	69.6	136	5.61	20	
Toluene	1.0	0.048	0.9653	0.01871	103	76.2	134	4.85	20	
Ethylbenzene	1.0	0.048	0.9653	0	109	75.8	137	4.50	20	
Xylenes, Total	3.2	0.097	2.896	0.04764	108	78.9	133	6.06	20	
Surr: 4-Bromofluorobenzene	1.0		0.9653		107	80	120	0	0	

## Qualifiers:

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- P Sample pH Not In Range
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## Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1509012

RcptNo: 1

Received by/date: LM 09/01/15

Logged By: Celina Sessa

9/1/2015 8:05:00 AM

*Celina Sessa*

Completed By: Celina Sessa

9/1/2015 10:38:45 AM

*Celina Sessa*

Reviewed By: *[Signature]*

09/01/15

### Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

### Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0° C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes			



# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 604 W. Piñon St.

Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#: eskyles@animasenvironmental.com

QA/QC Package:

☒ Standard

☐ Level 4 (Full Validation)

Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard

☐ Rush

Project Name:

COPC SJ 30-b CTB3

Project #:

Project Manager:

E. Skyles

Sampler: ES/SG

On Ice: ☒ Yes

☐ No

Sample Temperature: 7.6 - 0.1 CF = 2.5



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / HMR)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
27/15	15:30	Soil	SC-1	1-402	cool	-001	X	X										
27/15	15:38	Soil	SC-2	1-402	cool	-002	X	X										
27/15	15:20	Soil	SC-3	1-402	cool	-003	X	X										
27/15	16:00	Soil	SC-4	1-402	cool	-004	X	X										
27/15	16:08	Soil	SC-5	1-402	cool	-005	X	X										
27/15	16:30	Soil	SC-6	1-402	cool	-006	X	X										
27/15	16:39	Soil	SC-7	1-402	cool	-007	X	X										
27/15	16:45	Soil	SC-8	1-402	cool	-008	X	X										
27/15	16:15	Soil	SC-9	1-402	cool	-009	X	X										

Date: 8/31/15 Time: 1418 Relinquished by: Gil S/L

Received by: Christine Walters

Date: 8/31/15 Time: 1418

Date: 8/31/15 Time: 1845 Relinquished by: Christine Walters

Received by: [Signature]

Date: 09/01/15 Time: 0805

Remarks: BILL TO CONOCO PHILLIPS

WD # 10381020

USER: MCINNSK

AREA SUPERVISOR: MIKE MURPHY

Capital Projects: Randall Smith

Area: 5

Ordered by: Lisa Hunter

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.